

# CHAPTER 2

## DESCRIPTION OF ALTERNATIVES

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### INTRODUCTION

This chapter describes the alternatives. Tables 2.1 and 2.2 compare the average annual level of fire management activity under each alternative. The Proposed Action is the Multiple Treatment Alternative for fire and fuels management. Two other action alternatives are the Mechanical Emphasis Alternative and the Fire Emphasis Alternative. BLM would comply with the laws, regulations, Executive Orders, policy, and formally adopted agreements described in Chapter 1 under all four alternatives. All alternatives encompass resource protection measures based on current policy, guidance, direction, and law.

### ALTERNATIVES

#### No Action Alternative

Under the No Action Alternative, BLM would continue to implement current wildland fire suppression and fuels management actions consistent with existing Resource Management Plans (RMPs). Based on the past 3 years of records submitted to BLM's Fire Program, an average of 57,000 acres have been treated per year in New Mexico and Texas through prescribed fire and mechanical, chemical, and biological treatments. The BLM would implement the National Fire Plan (NFP) and the 2001 Federal Fire Policy to the extent possible. However, implementation would be restricted by existing RMP decisions that do not allow necessary activities or that allow necessary activities but do not provide sufficient direction to guide fire and fuels management. Table 2.3 summarizes current RMP decisions related to fire and fuels management.

#### Proposed Action: Multiple Treatment Alternative

The Proposed Action is the Multiple Treatment Alternative. Under this alternative, a yearly average of approximately four times as many acres would be treated as under the No Action Alternative. As hazardous fuel loads are reduced, the potential for intense, severe wildland fire would also be reduced. A balance of treatment types would be implemented. Field Offices would have considerable flexibility in determining the appropriate treatments for specific areas. Effects on wildlife habitat, cultural resources, and other resources would be considered during treatment planning. Damage to resources and property from wildland fire and fire suppression, along with the cost of suppression and emergency stabilization and rehabilitation, would decrease on and near treated areas. Wildland fire trends in fire size, intensity, and severity would continue on untreated areas.

The proportion of treatments under the Proposed Action is balanced, with an average of 40 percent and a range of 20-45 percent of total acres treated with prescribed fire, 40 percent with a range of 20-40 percent with mechanical treatments, and 20 percent with chemical treatments. Biological treatments are not planned but may be considered by Field Offices for site-specific projects. BLM would use a combination of any fuels management technique (wildland fire use, prescribed fire, mechanical treatment, chemical treatment, or biological treatment) on any fuel type, to meet fire and fuels management objectives.

**TABLE 2.1  
ANTICIPATED AVERAGE ANNUAL LEVELS OF FIRE AND FUELS MANAGEMENT ACTIVITY  
BY ALTERNATIVE\***

<b>Issue/Resource</b>	<b>No Action Alternative</b>	<b>Proposed Action</b>	<b>Mechanical Emphasis Alternative</b>	<b>Fire Use Emphasis Alternative</b>
Wildland Fire Suppression Strategy	Wildland fires would not be allowed to burn without suppression, unless permitted in RMP.	Varied suppression responses by Fire Management Unit	Varied suppression responses by Fire Management Unit	Varied suppression responses by Fire Management Unit
Wildland Fire Use Strategy	Wildland fires would not be used to achieve responsible and definable land use benefits and resource management objectives unless permitted in RMP.	Yes. Naturally occurring fires under prescribed conditions in Categories C and D would be used to achieve responsible and definable land use benefits and resource management objectives.	Yes. Naturally occurring fires under prescribed conditions in Categories C and D would be used to achieve responsible and definable land use benefits and resource management objectives.	Yes. Naturally occurring fires under prescribed conditions in Categories C and D would be used to achieve responsible and definable land use benefits and resource management objectives.
Prescribed Fire	Currently, an average of 20,000 acres per year.	An average of 149,000 acres per year.	An average of 55,000 acres per year.	An average of 200,000 acres per year.
Mechanical Treatments	Currently, an average of 14,500 acres per year.	An average of 33,000 acres per year.	An average of 50,000 acres per year.	An average of 17,000 acres per year.
Chemical Treatments	Currently an average of 23,500 acres per year.	An average of 47,000 acres per year.	An average of 47,000 acres per year.	An average of 47,000 acres per year.
Biological Treatments	Currently an average of 0 acres per year.	An average of 0 acres per year.	An average of 0 acres per year.	An average of 0 acres per year.
Complies with Federal Wildland Fire Policy of 2001	No	Yes	Yes	Yes
Improved Management Efficiency in the Use of Prescribed Fire and in Suppression of Wildland Fires	Does not improve management efficiency in the use of prescribed fire and in suppression of wildland fires.	Improved management efficiency in the use of prescribed fire and in suppression of wildland fires.	Improved management efficiency, using less prescribed fire and in suppression of wildland fires.	Improved management efficiency, using more prescribed fire and in suppression of wildland fires.

NOTE: See Appendix A.1 for additional information on how alternatives were derived.  
SOURCE: BLM New Mexico State Office, 2003

<b>TABLE 2.2 AVERAGE ANNUAL TREATMENT ACRES BY ALTERNATIVE BY FIELD OFFICE *</b>				
<b>Field Office</b>	<b>No Action Alternative</b>	<b>Proposed Action</b>	<b>Mechanical Emphasis Alternative</b>	<b>Fire Emphasis Alternative</b>
Albuquerque	7,000	23,000	17,000	29,000
Carlsbad	7,000	29,000	19,000	38,000
Farmington	17,000	33,000	25,000	42,000
Las Cruces	6,000	73,000	35,000	92,000
Roswell	3,000	21,000	15,000	28,000
Socorro	10,000	32,000	25,000	38,000
Taos	3,000	15,000	14,000	16,000
Amarillo	4,000	2500	1,200	3,000
<b>AVERAGE GOAL</b>	<b>57,000</b>	<b>229,000</b>	<b>151,000</b>	<b>287,000</b>
<b>RANGE (+/- 20percent)</b>		<b>183,000-275,000</b>	<b>121,000-181,000</b>	<b>230,000-344,000</b>
NOTE: *The treatment goals are an average that may be treated yearly and may vary due to budget, climate, soil conditions, resource availability, or environmental constraint. These acres have been rounded to the nearest thousand acres and are mean (average) annual acres for the life of the plan amendment.				
SOURCE: BLM New Mexico State Office, 2003.				

The average acres treated under the Proposed Action were determined by summarizing the total acres of vegetation in five major vegetation groups by Field Office. The major vegetation groups are grasslands, shrublands, woodlands, forests, and riparian which includes the exotic species saltcedar (*Tamarix spp.*). Total acres in each group were derived from the GAP vegetation map for New Mexico and from the Texas Parks and Wildlife Department (1984) for Texas; acres in each vegetation group for each Field Office can be found in Appendix A.1. Under the Proposed Action, an average of 40 percent of acres treated annually would be mechanical treatments of woodlands, forest, and saltcedar; an average of 40 percent would be prescribed fire on grasslands and woodlands; and an average of 20 percent would be chemical treatment of shrublands. These acres vary by Field Office because of the varying proportions of vegetation groups in each Field Office. Acres shown on Table 2.2 have been rounded to the nearest thousand acres and are average annual acres for the 20 year life of the Plan Amendment. More information about how the acres were derived is presented in Appendix A.1.

**TABLE 2.3**  
**SUMMARY OF CURRENT FIRE AND FUELS MANAGEMENT GUIDANCE**  
**(NO ACTION ALTERNATIVE)**

WILDLAND FIRE SUPPRESSION GUIDANCE	PRESCRIBED FIRE/FUELS REDUCTION GUIDANCE
<p><b>All wildland fires receive initial attack unless a modified suppression plan is developed and in effect:</b></p> <ul style="list-style-type: none"> <li>•Rio Puerco RMP (Albuquerque FO)</li> <li>•Carlsbad RMP</li> <li>•Mimbres RMP (Las Cruces FO)</li> <li>•Taos RMP</li> <li>•White Sands RMP (Las Cruces FO)</li> </ul> <p><b>Control, during first burn period, all wildfires on or threatening public land. Use a modified suppression plan for some Special Designated Areas.</b></p> <ul style="list-style-type: none"> <li>•Socorro RMP</li> </ul> <p><b>Develop or use existing Fire Management Plan to identify areas for the appropriate actions of control or confinement.</b></p> <ul style="list-style-type: none"> <li>•Farmington RMP</li> </ul> <p><b>All wildland fires receive conditional suppression with exceptions, where full suppression would be used:</b></p> <ul style="list-style-type: none"> <li>•Roswell RMP</li> </ul> <p><b>Other Guidance:</b></p> <ul style="list-style-type: none"> <li>•White Sands RMP (Las Cruces FO), McGregor Range: The current policy is for BLM to suppress and monitor all nonmilitary fire except in impact and military use areas on McGregor Range. The Army is responsible to suppress or monitor all fires in impact areas and military use areas and all fires caused by military activities.</li> </ul> <p><b>Currently, no wildland fire suppression guidance in RMP</b></p> <ul style="list-style-type: none"> <li>•Texas RMP</li> </ul>	<p><b>No Guidance:</b></p> <ul style="list-style-type: none"> <li>•Texas RMP</li> </ul> <p><b>Prescribed Burning: Prescribed burning is currently allowed with:</b></p> <p><u>No limitations</u></p> <ul style="list-style-type: none"> <li>•Rio Puerco RMP (Albuquerque FO)</li> <li>•Farmington RMP</li> <li>•Socorro RMP</li> </ul> <p><u>Acreage limitation</u></p> <ul style="list-style-type: none"> <li>•Carlsbad RMP: Treat 59,000 acres with prescribed fire.</li> </ul> <p><u>Prescribed burning restrictions on certain land cover types:</u></p> <ul style="list-style-type: none"> <li>•Mimbres RMP (Las Cruces FO)</li> <li>•Roswell RMP</li> </ul> <p><b>Other Management Limitations:</b></p> <ul style="list-style-type: none"> <li>•Rio Puerco RMP (Albuquerque FO): Mechanical treatment (chaining, cabling, and pushing) is not the preferred means of control.</li> <li>•Carlsbad RMP: Treat 3,000 acres with chemical treatments.</li> <li>•Mimbres RMP (Las Cruces FO): Chemical treatment restrictions on certain land cover types.</li> <li>•Roswell RMP: A project area will not be chemically treated until the chemical treatment of an adjacent project area has been in place at least 5 years; native deciduous tree species in all plant communities will be protected from vegetation treatments and surface.</li> <li>•Taos RMP: Vegetative treatment will occur in conjunction with intensive rangeland management on about 5,000 acres per year. Disallow any action where removal of vegetation would adversely alter areas of riparian habitat.</li> <li>•White Sands RMP (Las Cruces FO): Maintain the present pinyon pine stands in the Cuchillo Mountains as a pinyon nut collection area. Increase forage production through treatment projects (chemical, mechanical, and burning) on 241,576 acres in the long-term.</li> </ul>

Source: BLM New Mexico State Office, 2000

The Proposed Action would allow the BLM the most flexibility in tailoring treatments to fit local needs and conditions. Wildland fire use for resource benefit and prescribed fire (combined under prescribed fire in Tables 2.1 and 2.2) plus mechanical treatment are the tools most likely to be used in fire and fuels management on a landscape scale. Therefore, the proportions of treatments using these tools are approximately equal under this alternative. Because the Proposed Action involves a large increase in acres treated from the No Action Alternative, the first few years of implementation may yield relatively low numbers of acres treated until treatment capabilities are increased. The treatment goals represent an annual average; in some years, only a small number of acres may be treated due to drought, fire conditions, funding constraints, or other issues. In other years, treated acres may exceed the average. The treated acres would be reviewed as part of the Fire Management Plan NEPA analysis and adjustments would be made to take into consideration current conditions and improved data.

This alternative would amend BLM's nine existing RMPs to comply with current fire policy and guidance and to fully integrate fire and fuels management and direction. This alternative includes the following components, described below: Fire Management Categories, treatment priorities, Best Management Practices, public education, and monitoring and adaptive management.

### **Fire Management Categories**

Under the Proposed Action, BLM-administered public land would be assigned to one of the following four Fire Management Categories.

**Category A: Areas where fire is not desired at all.** This category includes areas where mitigation and suppression are required to prevent direct threats to life or property. It also includes areas where fire never played a large role historically in the development and maintenance of the ecosystem, and some areas where fire return intervals were very long.

**Category B: Areas where unplanned wildfire is not desired because of current conditions.** These are ecosystems (including some WUI areas) where an unplanned ignition could have negative effects unless/until some form of mitigation takes place.

**Category C: Areas where wildland fire is desired, but there are significant constraints on its use.** Areas where significant ecological, social or political constraints (such as air quality, threatened and endangered species, or wildlife habitat considerations) limit wildland fire use.

**Category D: Areas where wildland fire is desired, and there are few or no constraints on its use.** These are areas where unplanned and planned wildland fire may be used to achieve desired objectives such as to improve vegetation, wildlife habitat or watershed conditions.

The full text of Fire Management Category definitions is included in Appendix A.2. Table 2.4 describes the fire and fuels management associated with each category. Table 2.5 lists acres in each Fire Management category in New Mexico and Texas, by Field Office. FMU are areas identified by geographic, social, and political characteristics, with specific objectives for fire and fuels management. Each FMU is assigned a Fire Management category. Appendix A.6 contains a list and map boundaries and categories of FMUs in New Mexico and Texas for each Field Office.

Field Offices need to be able to change and update FMU categories and boundaries to reflect the dynamic effects of wildland fire, prescribed fire, and non-fire treatments on the landscape

over the life of the Plan Amendment. FMU categories and boundaries could be changed when Fire Management Plans are updated, or when social or ecological conditions indicate that changes are necessary. Fire Management Plans are the activity plans that outline how decisions in the RMP Amendment will be implemented. Fire Management Plans are reviewed annually and updated as needed, typically with major revisions every 3 to 5 years. Field Offices that receive public input requesting changes in FMU categories and boundaries or that experience ecological change based on changing land use, fire conditions, or recent fires may consider revising FMU categories and boundaries. The revised FMU categories and boundaries would require NEPA review and compliance.

TABLE 2.4 MANAGEMENT ASSOCIATED WITH EACH FIRE MANAGEMENT CATEGORY						
		Wildland Fire Management			Vegetation Treatments	
		Suppression Priority	Suppression Strategy	Wildland Fire Use*	Prescribed Fire	Mechanical/ Chemical/ Biological
<b>A</b> FMU	<b>Fire is not desired at all</b>	<b>High</b>	<b>Aggressively Suppress</b> fires to limit acreage burned.	<b>No</b>	<b>No</b> , except pile burning of mechanically removed vegetation.	<b>Yes</b> , fuel hazard reduction to mitigate risks a priority
<b>B</b> FMU	<b>Unplanned wildland fire is not desired</b>	<b>High</b>	<b>Limit acreage burned</b> , weighing suppression costs against potential damages from fire.	<b>No</b>	<b>Yes</b> , fuel hazard reduction to mitigate risks a priority	<b>Yes</b> , fuel hazard reduction to mitigate risks a priority.
<b>C</b> FMU	<b>Wildland fire is desired – must consider significant constraints.</b>	<b>Moderate</b>	<b>Utilize least cost suppression tactics</b> where fire is not damaging resources.	<b>Yes</b> , under <b>very limited</b> prescribed conditions	<b>Yes</b> , used to attain desirable resource conditions	<b>Yes</b> , used to attain desirable resource conditions
<b>D</b> FMU	<b>Wildland fire desired-fewer constraints</b>	<b>Low</b>	<b>Utilize least cost suppression tactics.</b> Consider wildland fire use if appropriate.	<b>Yes</b> , under prescribed conditions	<b>Yes</b> , used to attain desirable resource conditions; fuel hazard reduction is lower priority than “C” FMU.	<b>Yes</b> , used to attain desirable resource conditions; fuel hazard reduction is lower priority than “C” FMU.
<b>NOTE: * Wildland fire use is the management of wildland fires to accomplish specific pre-stated resource management goals in predefined geographic areas.</b>  <b>SOURCE: BLM New Mexico State Office, 2003</b>						

**TABLE 2.5**  
**FIRE MANAGEMENT UNITS, CATEGORIES, AND BLM ACRES BY FIELD OFFICE**  
**(AS OF 12/17/03)**

<b>FIELD OFFICE</b>	<b>CATEGORY</b>	<b>NUMBER OF FMUS</b>	<b>BLM ACRES</b>	<b>PERCENT</b>
<b>Albuquerque</b>	A	0	0	0.0%
	B	3	28,087	2.7%
	C	4	955,306	93.4%
	D	1	39,980	3.9%
	<b>TOTAL</b>	<b>8</b>	<b>1,023,373</b>	<b>100.0%</b>
<b>Amarillo</b>	A	0	0	0.0%
	B	0	0	0.0%
	C	3	488	4.1%
	D	1	11,314	95.9%
	<b>TOTAL</b>	<b>4</b>	<b>11,802</b>	<b>100.0%</b>
<b>Carlsbad</b>	A	0	0	0.0%
	B	0	0	0.0%
	C	4	1,790,042	85.6%
	D	1	301,001	14.4%
	<b>TOTAL</b>	<b>5</b>	<b>2,091,043</b>	<b>100.0%</b>
<b>Farmington</b>	A	4	63,898	4.2%
	B	5	60,413	4.2%
	C	10	1,270,971	91.6%
	D	0	0	0.0%
	<b>TOTAL</b>	<b>19</b>	<b>1,395,282</b>	<b>100.0%</b>
<b>Las Cruces</b>	A	11	20,254	0.4%
	B	6	328,497	6.1%
	C	4	4,189,773	77.7%
	D	17	852,241	15.8%
	<b>TOTAL</b>	<b>38</b>	<b>5,390,765</b>	<b>100.0%</b>
<b>Roswell</b>	A	0	0	0.0%
	B	1	25,790	1.7%
	C	2	50,144	3.4%
	D	1	1,407,186	94.9%
	<b>TOTAL</b>	<b>4</b>	<b>1,483,120</b>	<b>100.0%</b>
<b>Socorro</b>	A	4	1,008	0.1%
	B	5	8,562	0.6%
	C	1	1,004,520	66.6%
	D	9	492,927	32.7%
	<b>TOTAL</b>	<b>19</b>	<b>1,507,017</b>	<b>100.0%</b>
<b>Taos</b>	A	1	32	0.1%
	B	9	190,295	33.0%
	C	9	381,344	66.1%
	D	1	4,885	0.8%
	<b>TOTAL</b>	<b>20</b>	<b>576,556</b>	<b>100.0%</b>

Source: BLM New Mexico State Office, 2004.

## Treatment Priorities

Under the Proposed Action, fuels treatments of vegetation in New Mexico and Texas would be prioritized as follows:

1. Treatments to reduce the risk to human life and property;
2. Treatments to reduce the risk and cost of fire suppression in areas of hazardous fuels buildup; and
3. Treatments to achieve other resource objectives

Treatments would, first of all, focus on communities and surrounding areas with the potential for escaped fire or loss of life or property. The BLM would focus treatments on public land within the 18 Wildland/Urban Interface (WUI) areas defined in cooperation with the New Mexico State Forestry Division (2003) and on other areas where public land is adjacent to communities.

Secondly, treatments would focus on improving landscape health through treating lands in Fire Regime Condition Classes 2 and 3. Fire Regime Condition Class 1 would be maintained. The Desired Future Condition of the landscape is Fire Regime Condition Class 1. Fire Regime Condition Class is “a function of the degree of departure from historical fire regimes resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure. One or more of the following activities may have caused this departure: fire exclusion, timber harvesting, grazing, introduction and establishment of exotic species, insects and disease (introduced or native), or other pests management activities” (Schmidt et al, 2002). Appendix A.3 contains a more detailed definition of Fire Regime Condition Class. Table 2.6 summarizes Fire Regime Condition Class acres for public land in New Mexico and Texas by Field Office. Currently available data for defining Condition Class are at low resolution and are geared towards forests rather than shrublands and grasslands. Therefore, the amount of public land in Condition Class 1 is likely to be overestimated in Table 2.6, and the amount of public land in Condition Classes 2 and 3 is likely to be underestimated (Ann Shilsky, The Nature Conservancy, personal communication, November 21, 2003). BLM is currently in partnership with The Nature Conservancy to improve map data for determining Fire Regime Condition Class in New Mexico and Texas.

**TABLE 2.6**  
**FIRE REGIME CONDITION CLASS ACRES BY FIELD OFFICE\***

<b>Field Office</b>	<b>Class 1 Acres</b>	<b>Class 2 Acres</b>	<b>Class 3 Acres</b>	<b>TOTAL</b>
Albuquerque	106,339	835,764	85,432	1,027,535
Amarillo		11,629		11,629
Carlsbad	1,024,243	1,063,339	1,010	2,088,592
Farmington	86,408	1,167,045	123,619	1,377,072
Las Cruces	3,265,492	2,064,646	20,501	5,350,639
Roswell	421,318	1,042,671	247	1,464,236
Socorro	378,996	981,127	138,572	1,498,695
Taos	206,931	244,084	117,667	568,682
<b>Total Acres</b>	<b>5,489,727</b>	<b>7,410,305</b>	<b>487,048</b>	<b>13,387,080</b>

NOTE: \*1 kilometer resolution

SOURCE: Rocky Mountain Research Station, 2000



Under the Proposed Action, an average 229,000 acres would be treated per year, for an average of 4,580,000 acres treated during the approximate 20 year life of the plan amendment. Fire Regime Condition Class was not used to determine the number of acres to treat, but as noted above, acres in Fire Regime Condition Classes 2 and 3 would be priorities for treatment to achieve Fire Regime Condition Class 1.

### **Best Management Practices**

The Proposed Action would require the use of Best Management Practices. BLM policies and guidance for public land treatments would be followed in implementing fire suppression, wildland fire use for resource benefit, prescribed fires, and mechanical, chemical, and biological treatment methods. Guidelines are provided in BLM handbooks and manuals cited in the “New Mexico Standards and Guidelines for Public Lands Health” and in Table 2.7. Best Management Practices are summarized in Table 2.7.

**Appropriate Management Response:** The proposed plan amendment provides general guidance, goals and objectives for the Fire Management Program in each Field Office. When a wildland fire occurs, input from the plan amendment and from the Field Office’s RMP is used in an evaluation of the fire situation to decide on an appropriate response to the fire. This concept is known as the “appropriate management response” (AMR), and is described by the Federal Wildland Fire Management Policy as follows:

The response to a wildland fire is based on an evaluation of risks to Firefighter and public safety, the circumstances under which the fire occurs, including weather and fuel conditions, natural and cultural resource management objectives, protection priorities, and values to be protected. The evaluation must also include an analysis of the context of the specific fire within the overall local, geographic area, or national wildland fire situation.

Therefore, under the Proposed Action, the response to every wildland fire will be made based on an array of existing and expected conditions at the time the fire occurs.

**Wildland Fires:** Past wildland fire history provides a reasonable basis upon which to predict future wildland fire activity. Between 1980 and 2003, BLM New Mexico responded to 2,705 fires on BLM-administered public land for an average of about 112 fires per year (Table 2.8, Appendix A.4). Under the Proposed Action, the following areas would be protected from wildland fire on BLM-administered public land: Buildings and structures; oil and gas fields and related facilities; communication sites and related facilities; coal mines and related facilities; cultural sites and historic structures; power lines; communities; important wildlife habitat; campgrounds and other developed recreation areas; forest or woodlands where potential loss of key ecosystem components is high; lands having intermingled public, state, and private ownership where there are currently no agreements for using wildfire as a resource management tool; and other areas identified through continued public involvement in fire planning efforts.

**Vegetation Treatments:** Under the Proposed Action, vegetation treatments consist of wildland fire use for resource benefit, prescribed burns, mechanical treatments, and chemical treatments. Biological treatments are not anticipated but would be allowed with site-specific analysis. Some treatments may need to be used in combination with others for best results. Some areas may need to be treated repeatedly to achieve desired results.

**TABLE 2.7**  
**VEGETATION TREATMENT METHODS BEST MANAGEMENT PRACTICES**

<b>Resource Element</b>	<b>Best Management Practices per Treatment Method</b>			
	<b>Prescribed Fire</b>	<b>Mechanical</b>	<b>Chemical</b>	<b>Biological</b>
Guidance Documents	BLM handbook H-9214-1 Prescribed Fire Management 2000	BLM Manual 1112 (Safety)	BLM Handbooks H-9011-1 H-9015	BLM Manuals 1112, 4100 9014
General	Prepare Fire Management Plan. Use trained personnel with adequate equipment.	Ensure that power cutting tools have approved spark arresters. Wash vehicles and equipment before leaving weed infested areas to avoid infecting weed-free areas. Minimize soil disturbance which may encourage new weeds to develop.	Prepare spill contingency plan in advance of treatment. Select chemical that is least dangerous to environment while providing the desired results. Keep records of each application, including the active ingredient, formulation, application rate, date, time, and application.	Use only biological control agents that have been tested and approved to ensure they are host-specific. Manage the intensity and duration of grazing.
Land Use	Carefully plan fires in WUI to avoid loss of property. Notify nearby residents and landowners who could be affected by smoke intrusions or by other fire effects.		Consider surrounding land use before aerial spraying. Comply with herbicide-free buffer zones to ensure that no drift will affect adjoining landowners.	
Air Quality  See Manual 7000.	Evaluate weather conditions, including wind speed and atmospheric stability, to predict effects of burn and impacts from smoke.  Coordinate burn activities with New Mexico Environment Department. Burn when weather conditions are good for rapid smoke dispersion.	Minimize generation of dust and exhaust.	Consider effects of wind, humidity, temperature inversions, and rainfall on herbicide effectiveness and risks.	
Geology, Minerals, Oil and Gas	Maintain safety buffer between burn area and facilities.	Minimize area of surface disturbance.		
Soil	Minimize broadcast burning on highly erodible soils. Re-seed if necessary following treatment to encourage revegetation and minimize erosion. Minimize soil heating by pre-treatment of fuels where practical.	Implement erosion control measures where heavy equipment is used. Limit heavy equipment use on slopes greater than 30 percent. Conduct activities on dry or frozen soil to minimize soil compaction. Avoid damage to biological crusts.	Avoid treating areas where herbicide runoff is likely. Consider soil mobility.	

**TABLE 2.7**  
**VEGETATION TREATMENT METHODS BEST MANAGEMENT PRACTICES**

<b>Resource Element</b>	<b>Best Management Practices per Treatment Method</b>			
	<b>Prescribed Fire</b>	<b>Mechanical</b>	<b>Chemical</b>	<b>Biological</b>
<p>Water Resources</p> <p>See Manual 7000 and Memorandum of Understanding with New Mexico Environment Department.</p>	<p>Maintain minimum buffer of 25-50 feet between burn area and water bodies. Minimize burning on hillslopes with high erosion potential and consider revegetation to mitigate. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.</p> <p>Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with 10,000 mg/l total dissolved solids (TDS) or less.</p>	<p>Maintain minimum buffer of 25-50 feet between burn area and water bodies. Reseed skid trails and roads closed after operations. Install erosion control structures on roads used. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.</p> <p>Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with 10,000 mg/l TDS or less.</p>	<p>Consider climate, soil type, slope, and vegetation types in determining the risk of herbicide to water resources. Follow label instructions, especially near water bodies. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.</p> <p>Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with 10,000 mg/l TDS or less.</p> <p>Evaluate site-specific potential for groundwater contamination with the Environmental Protection Agency rating system DRASTIC.</p>	<p>Avoid using livestock near residential or domestic water sources. Utilize grazing plans and systems to improve public land health. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.</p> <p>Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with 10,000 mg/l TDS or less.</p>
Streams and Wetlands	<p>Maintain minimum buffer of 25-50 feet between burn area and water bodies. Minimize burning on hillslopes with high erosion potential and consider revegetation to mitigate.</p>	<p>Maintain minimum buffer of 25-50 feet between burn area and water bodies.</p>	<p>Apply buffer zones of 100 feet for aerial application, 25 for ground, and 10 feet for hand application.</p> <p>Follow label instructions for control of salt cedar.</p>	<p>Avoid using livestock near residential or domestic water sources.</p>
<p>Vegetation</p> <p>See Handbook H-4410-1, 5000, and 9015.</p>	<p>Conduct burn prescriptions to minimize residual damage to desirable trees.</p> <p>Mitigate soil erosion by constructing erosion control structures on any control lines used.</p>	<p>Minimize disturbance to native vegetation by keeping equipment on existing roads and trails.</p> <p>Reseed skid trails and roads to be closed after operations.</p> <p>Install erosion control structures on roads used.</p>	<p>Avoid damage to non-target plants by using selective herbicides or selective equipment.</p> <p>Reduce drift hazard to non-target species.</p> <p>Minimize the use of broadcast foliar applications to reduce the creation of large areas of browned vegetation.</p>	<p>Use grazing animals at times most likely to damage invasive species.</p> <p>Exclude livestock from revegetated areas for at least two growing seasons.</p>

**TABLE 2.7**  
**VEGETATION TREATMENT METHODS BEST MANAGEMENT PRACTICES**

<b>Resource Element</b>	<b>Best Management Practices per Treatment Method</b>			
	<b>Prescribed Fire</b>	<b>Mechanical</b>	<b>Chemical</b>	<b>Biological</b>
<p>Fish</p> <p>See Manuals 6500 and 6780.</p>	<p>Maintain a vegetated buffer near fish-bearing streams to minimize soil erosion and soil runoff into streams.</p>	<p>Avoid treatments adjacent to fish-bearing waters.</p> <p>Refuel and service equipment away from water bodies.</p> <p>Maintain vegetated buffer between treatment area and water body.</p>	<p>Avoid treatments near fish-bearing streams during periods when fish are in life stages most sensitive to the herbicide used.</p> <p>Use appropriate buffer zones based on label instructions and risk.</p>	<p>Limit access of grazing animals to streams and other water bodies to minimize sediments entering water and potential for damage to fish habitat.</p>
<p>Wildlife</p> <p>See Manuals 6500 and 6780.</p>	<p>Avoid treatments during nesting and other critical periods for birds and other wildlife.</p>	<p>Retain wildlife trees and other unique habitat features where practical.</p> <p>Vegetation management strategies should be consistent with historical succession and disturbance regimes.</p> <p>Fuels treatments should consider habitat needs of migratory and non-migratory populations.</p> <p>Avoid treatments during nesting and other critical periods for birds and other wildlife.</p>	<p>Use herbicides of low toxicity to wildlife.</p> <p>Avoid treatments during nesting and other critical periods for birds and other wildlife.</p>	
<p>Threatened and Endangered (T&amp;E) Species</p> <p>See Manual 6840.</p>	<p>Avoid direct impacts to listed species if project may impact listed species, unless studies show that species will benefit from fire.</p> <p>Survey for T&amp; E species and consult with US Fish &amp; Wildlife Service (USFWS) as necessary if project may impact listed species.</p> <p>See site-specific conservation measures from Biological Evaluation and in Appendix C.2.</p>	<p>Avoid use of ground disturbing equipment near T&amp;E species.</p> <p>Survey for T&amp;E species and consult with USFWS as necessary if project may impact listed species.</p> <p>See site-specific conservation measures from Biological Evaluation and in Appendix C.2</p>	<p>Survey for T&amp;E species and consult with USFWS as necessary if project may impact listed species.</p> <p>See site-specific conservation measures from Biological Evaluation and in Appendix C.2.</p>	

TABLE 2.7 VEGETATION TREATMENT METHODS BEST MANAGEMENT PRACTICES				
Resource Element	Best Management Practices per Treatment Method			
	Prescribed Fire	Mechanical	Chemical	Biological
Wild Free-Roaming Horses and Burros	<p>Do not burn extensive, contiguous areas of the Herd Management Area in the same year.</p> <p>Start prescribed fires in such a way as to decrease the likelihood of horses running through fences.</p> <p>Limit burning during the peak foaling period from March 1 through June 30.</p>		Avoid using herbicides in areas actively grazed by wild horses and burros.	
Livestock  See Handbook H-4120-1.	<p>Notify permittees of livestock feeding restrictions in treated areas, if necessary.</p> <p>Provide alternative forage sites for livestock, if use areas burn.</p>	<p>Notify permittees of livestock feeding restrictions in treated areas, if necessary.</p> <p>Provide alternative forage sites for livestock, if necessary.</p>	<p>Notify permittees of livestock feeding restrictions in treated areas, if necessary.</p> <p>Provide alternative forage sites for livestock, if necessary.</p>	
<p>Cultural Resources and Native American Religious Concerns</p> <p>See NM BLM Protocol with State Historic Preservation Office (SHPO) and Manuals 8100 and 8160.</p>	<p>Evaluate potential impacts of proposed treatment. Conduct cultural resource inventories to identify sites at risk from treatment. Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.</p> <p>Consult with SHPO and tribes per NM Statewide Protocol Agreement. In Texas, consult with Texas SHPO for National Register of Historic Places (NRHP) site eligibility and effect.</p> <p>Monitor effectiveness of site protection measures (Appendix A.5, Monitoring and Adaptive Management).</p>	<p>Evaluate potential impacts of proposed treatment. Conduct cultural resource inventories to identify sites at risk from treatment. Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.</p> <p>Consult with SHPO and tribes per NM Statewide Protocol Agreement. In Texas, consult with Texas SHPO for NRHP site eligibility and effect.</p> <p>Monitor effectiveness of site protection measures (Appendix A.5, Monitoring and Adaptive Management).</p>	<p>Evaluate potential impacts of proposed treatment. If application methods involve ground disturbing activities, conduct cultural resource inventories and implement avoidance measures.</p> <p>Consult with SHPO and tribes per NM Statewide Protocol Agreement. In Texas, consult with Texas SHPO for NRHP site eligibility and effect. Monitor effectiveness of site protection measures (Appendix A.5, Monitoring and Adaptive Management).</p>	<p>Evaluate potential impacts of proposed treatment</p> <p>If application methods involve ground disturbing activities, conduct cultural resource inventories as appropriate, and implement avoidance measures. Consult with SHPO and tribes per NM Statewide Protocol Agreement. In Texas, consult with Texas SHPO for NRHP site eligibility and effect. Monitor effectiveness of site protection measures (Appendix A.5 Monitoring and Adaptive Management).</p>

**TABLE 2.7**  
**VEGETATION TREATMENT METHODS BEST MANAGEMENT PRACTICES**

Resource Element	Best Management Practices per Treatment Method			
	Prescribed Fire	Mechanical	Chemical	Biological
Visual Resources  See Manual 8400 and H-8410-1.	Minimize or avoid prescribed burning under conditions that could result in smoke impacting PSD Class I areas. Maintain natural vegetated buffer between burn areas and public high use areas. Revegetate treated sites if necessary. Use existing roads and minimize fireline construction.	Minimize dust drift, especially near recreational or other public use areas. Minimize earthwork and locate from prominent topographic features. Revegetate treated sites if necessary.	Minimize the use of broadcast foliar applications to reduce the creation of large areas of browned vegetation. Minimize herbicide drift.	
Wilderness Areas. See handbooks H-8550-1, H-8560-1, 8351, 8560, plus Specific instructions in Fire Mgt. Unit descriptions & Appendix F of Resource Advisor Guide.	Minimize or avoid soil-disturbing activities during fire suppression or prescribed fire activities.  Revegetate sites with native species unless there is no reasonable expectation of natural regeneration.	Use least intrusive methods possible to achieve objectives, and use non-motorized equipment where possible.	Revegetate sites with native species unless there is no reasonable expectation of natural regeneration.  Use hand treatments of herbicides only when weeds are spreading within the wilderness or threaten lands outside the wilderness.	Use least intrusive methods possible to achieve objectives, and use non-motorized equipment where possible.
Recreation  See Handbook H-1601-1.	Control public access to potential burn areas.	Control public access until potential treatment hazards no longer exist.	Control public access until potential treatment hazards no longer exist. Post signs noting exclusion areas and duration of exclusion.	
Rights-of-Way	Avoid or minimize prescribed burning under powerlines.			
Health and Safety	Use some form of pre-treatment, such as mechanical or manual treatment, in areas where fire cannot be safely introduced due to hazardous build-up. Always use appropriate safety equipment and Personal Protective Equipment (PPE). Notify nearby residents who could be affected by smoke.	Always use appropriate safety equipment and PPE.	Always use appropriate safety equipment and PPE. Have copy of Material Safety Data Sheets at work site. Follow label instructions and BLM procedures in Handbooks H-9011-1, 1112, and 9015.	Always use appropriate safety equipment and PPE.

TABLE 2.8 WILDLAND FIRE HISTORY TRENDS ON PUBLIC LAND IN NEW MEXICO, 1980-2002						
	Lightning-Caused Fires		Human-caused Fires		Total Fires	
Years/Field Office	Number	Acres	Number	Acres	Number	Acres
<b>1980-1987</b>						
Albuquerque	52	513.1	10	128		
Carlsbad	17	3,778.1	26	4,951.6		
Farmington	68	36.4	30	229		
Las Cruces	27	3,579.4	11	284.4		
Roswell	14	1,220	20	7351		
Socorro	23	2,000.8	11	547.1		
Taos	7	2.6	12	37		
<b>TOTAL</b>	<b>208</b>	<b>11,130.4</b>	<b>120</b>	<b>13,529</b>	<b>328</b>	<b>24,659.4</b>
					<b>41/yr</b>	
<b>1988-1995</b>						
Albuquerque	52	7,805.3	21	42.1		
Carlsbad	137	22,833.4	231	82,058.6		
Farmington	108	691.8	27	65.2		
Las Cruces	137	145,722.7	55	18,882.9		
Roswell	112	5,7257.1	135	37,678.4		
Socorro	38	45,758.5	15	3,072.6		
Taos	18	152.1	53	109.4		
<b>TOTAL</b>	<b>602</b>	<b>280,220.9</b>	<b>537</b>	<b>141,909.2</b>	<b>1,139</b>	<b>422,130.1</b>
					<b>142/yr</b>	
<b>1996-2003</b>						
Albuquerque	70	23,223.9	15	702.4		
Carlsbad	42	1,762.3	144	3,484.1		
Farmington	452	543.3	76	382.8		
Las Cruces	33	41,939.6	40	28,599.8		
Roswell	52	7,198.1	185	9,357.7		
Socorro	31	36,062.9	13	6,288.4		
Taos	58	1,111.6	27	142.8		
<b>TOTAL</b>	<b>738</b>	<b>111,841.7</b>	<b>500</b>	<b>48,958</b>	<b>1,238</b>	<b>160,799.7</b>
					<b>155/yr</b>	
<b>Total: 24 yrs</b>	<b>1,548</b>	<b>403,193</b>	<b>1,157</b>	<b>204,395</b>	<b>2,705</b>	<b>607,588</b>
					<b>112/yr</b>	
SOURCE: BLM Wildland Fire Management Information Database; BLM NMSO GeoSciences						

### Wildland Fire Use for Resource Benefit

Under the Proposed Action, wildland fire use for resource benefit would be allowed in areas designated as Fire Management Categories C and D. However, prior to implementation of wildland fire use for resource benefit, the Field Office must have an approved Fire Management Plan in place. The Fire Management Plan would identify areas where wildland fire use is acceptable, and must identify the conditions under which a fire will be managed for resource benefit.

### Prescribed Fire

Under the Proposed Action, the use of prescribed fire would require the development of a fire prescription. These prescriptions would be designed with regard to site characteristics and the reproductive characteristics of the plant species present on the site. Prescribed burns would

generally be conducted in late spring, summer or fall in New Mexico, when temperatures and fuel moistures are within prescription. The prescribed burn prescription analysis would consider factors such as plant mortality, post-fire sprouting, reproduction from seed, effect of season of burning, effects of weather, post-fire plant productivity, relationship of fire to animal use, and post-fire plant competition (BLM1991). The BLM provides prescribed fire management policy direction under BLM Instruction Memorandum No. OF&A 2002-027. This document serves as the BLM handbook for prescribed fire pending development of an interagency prescribed fire management guide. In New Mexico, prescribed fire has been used to reduce hazardous fuels and restore ecosystem health. Most of these burns, 13,417 acres in 2002, also benefited other resources such as rangeland and wildlife habitat. The use of fire prescriptions would minimize negative effects on vegetation (and related dependant resources), as compared to wildland fire.

#### Mechanical Treatments in Combination with Prescribed Fire in Grasslands and Shrublands

The primary objective of treating grasslands and shrublands with mechanical treatments or prescribed fire is to remove encroaching conifers or other shrubs. Encroachment is indicated by the presence of young conifers (e.g., ponderosa pine, pinyon, and juniper) or other woody shrubs progressing from a forest or woodland into grasslands; or shrub encroachment into grasslands. Under the Proposed Action, mechanical treatments would be applied to remove these individual plants within a grassland or shrubland. Prescribed fire may also be used to meet resource objectives, such as restoring fire-adapted grass and shrublands, or increasing variation of age classes in shrublands. Treatments would be designed to achieve mosaic patterns, which would also reduce the potential of entire stands being destroyed by wildland fire.

#### Mechanical Treatments in Combination with Prescribed Fire in Forest and Woodlands

Past management practices, including fire suppression, grazing, and forest product harvesting, have helped create density levels of small-diameter trees beyond what would naturally occur. These small diameter trees create "ladder fuels" that carry fire from the ground into the canopy of adjoining crowns or larger overstory trees, where the fire becomes more difficult and dangerous to suppress. In some cases, prescribed fire could be used to thin small trees and remove dead and down woody vegetation. However, where prescribed fire would be difficult or impossible to control because of existing fuels buildup, mechanical or manual preparation may be required to reduce densities and allow a controllable prescribed burn.

Non-commercial thinning would be used where the trees to be thinned are too small to be of commercial value. These materials could then become available for public use. Commercial thinning may be used to reduce the density and the potential for crown fire. Overstory density is a concern where crown continuity creates a high potential for wildland fires to become crown fires. Overstory trees may be removed to reduce competition, allowing individual trees to grow larger and acquire fire-resistant characteristics. For the purposes of reducing wildland fuels, commercial woodland product harvest would be used. The objective of using woodland product harvesting for commercial or personal use on public land as a fuels management technique is to create conditions such that, in the future, harvest may not be needed. A more open stand structure could then be safely maintained with prescribed fire treatments.

#### Chemical Treatments

Under the Proposed Action, chemical treatments, primarily the use of herbicides, would be applied where other fuel treatments would not achieve resource objectives or would be applied



where other fuel treatments would create conditions favorable for expansion of noxious weeds or other undesirable invasive species. Herbicide treatments would follow BLM procedures outlined in BLM Handbook H-9011-1, 1112, and 9015 and would meet or exceed the State label standards (BLM 1991). The application method chosen depends upon the treatment objective, the accessibility, topography, and size of the treatment area; the characteristics of the target species and the desired vegetation; the location of sensitive areas and potential environmental impacts in the immediate vicinity; the anticipated costs; equipment limitations; and the meteorological and vegetative conditions of the treatment area at the time of the treatment.

### Biological Treatments

Biological treatments involve the intentional use of grazing animals, plant eating insects, nematodes, mites or pathogens that can weaken or destroy vegetation. The type and level of biological treatments may be considered for meeting site-specific objectives. However, under the Proposed Action, there are currently no plans to use biological treatments, and it is anticipated that they would constitute only a very small fraction of treatments. Livestock grazing could be considered to be a kind of biological treatment which influences Fire Regime Condition Class. Livestock grazing is not considered in the analysis of alternatives as a means of fire and fuel management, but it is analyzed at length in BLM's "Standards and Guidelines for Public Lands Health" (BLM 2000).

### Support Activities

Support activities may include strategic development of water resources for fire suppression, development of fuel breaks, and construction of access roads for vegetation treatments. These roads would be rehabilitated after use. Some relocation/design of existing roads would also be anticipated under the Proposed Action.

### Revegetation and Emergency Stabilization and Rehabilitation (ESR)

Damages resulting from wildland fires take two forms: suppression damages and resource damages. Suppression damage is the result of suppression operations; resource damage is damage to the resources by fire. Emergency stabilization involves short-term treatments (usually 1-6 months) to stabilize a burned area and mitigate suppression damages. This includes replacing equipment, infrastructure, buildings, or facilities damaged or destroyed by a suppression action. Immediate emergency stabilization to prevent further land degradation or resource loss, or to ensure safety, may be carried out as part of the incident.

Post-incident rehabilitation actions must be specified in a rehabilitation plan approved by the State Office, Field Manager, or Washington Office depending on the cost of the plan. Rehabilitation is defined as "long-term post-efforts to repair or improve lands unlikely to recover naturally from wildland fire damage, or to replace fire damaged facilities." Rehabilitation treatments may not be implemented for longer than 3 years.

Currently, the policy for Department of the Interior land is provided by Departmental Manual 620 DM3 (Emergency Stabilization and Rehabilitation), supplemented by BLM Policy Supplement Exhibit 4-2. The objective of the BLM ESR program is to mitigate the adverse effects of fire on the soil-vegetation resource in a cost-effective and expeditious manner and to minimize the possibility of wildland fire recurrence or invasion of weeds. Appropriate use of ESR funds includes implementing practices to:

- protect life, property, soil, water (including water-dependent resources) or vegetation resources.
- prevent unacceptable on-site or off-site damage.
- facilitate meeting land use plan objectives in conformance with land use plan decisions (per the Federal Land Policy and Management Act of 1976) and other applicable Federal laws.
- stabilize and protect known cultural resources from possible further post-fire degradation, and from restoration activities.
- reduce the establishment of undesirable or invasive species of vegetation.
- assist in meeting State Standards for Public Land Health.
- repair or replace BLM minor facilities or structures destroyed or damaged by fire.

Depending on the complexity of the wildfire, a specific Burned Area ESR plan will be developed for each incident or multiple incidents.

### **Public Education**

The Proposed Action includes aggressive public education, enforcement and administrative fire prevention mitigation measures. Education measures will encompass various media information, including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts. Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination. Administration includes expanded prevention and education programs with local, Federal and State agencies.

### **Monitoring and Adaptive Management**

The Proposed Action includes post-fire and post-treatment monitoring, as well as adaptive management. Adaptive management has been defined as “the rigorous combination of management, research, and monitoring so that credible information is gained and management activities can be modified by experience” (Scientific Panel for Sustainable Forest Practices in Clayoquot Sound 1995). Information about monitoring and adaptive management is presented in Appendix A.5.

### **Mechanical Emphasis Alternative – Emphasis on Mechanical Treatments for Fuels Management**

As a result of public comments received during scoping, the BLM is considering an alternative that emphasizes mechanical treatments as a way to reduce hazardous fuels. Under the Mechanical Emphasis Alternative, BLM would concentrate on mechanical treatment to meet fire and fuels management objectives. Under this Alternative, a third fewer acres would be treated than under the Proposed Action, but the treatment acres could be projected with greater certainty. Mechanical treatments are more expensive than prescribed fire or wildland fire use. Such treatments are often contracted, so the contracting process adds time to the

implementation; in addition, the process of mechanical treatment itself is more time-consuming than prescribed fire or wildland fire use. However, the implementation of mechanical thinning does not depend on meeting prescriptions such as appropriate fuel or weather conditions for burning. Therefore, mechanical thinning can take place under a wider range of circumstances than prescribed fire or wildland fire use, and the treatments are less likely to be cancelled due to unfavorable conditions. The higher proportion of mechanical treatment may result in greater damage to soils through compaction and disturbance, and greater quantities of dust and fumes from equipment. However, mechanical treatments can be planned to target specific resources for protection with greater precision than prescribed fire. Mechanical treatments also do not produce smoke and would therefore benefit air quality. Under this Alternative, the risk of catastrophic wildfire would be greater than under the Proposed Action, but considerably less than under present conditions.

Under this Alternative, BLM would treat an average of 151,000 acres annually (Table 2.2), nearly three times the average annual acres presently treated under the No Action Alternative. This alternative differs from the Proposed Action only in the proportion of acres that would be treated using prescribed fire, mechanical treatments, and chemical treatments. All other aspects of this Alternative are the same as under the Proposed Action. Under the Mechanical Emphasis Alternative, an average of 60 percent of acres treated annually would be mechanical treatments of woodlands and forest; 20 percent would be prescribed fire on grasslands and woodlands; and 20 percent would be chemical treatment of shrublands (Appendix A.1). Over 20 years, approximately 3,020,000 acres would be treated.

#### Fire Emphasis Alternative - Emphasis on Fire Treatments for Fuels Management

As a result of public comments received during scoping, the BLM is considering an alternative that emphasizes wildland fire use for resource benefit and prescribed fire as a way to reduce hazardous fuels. Under this Alternative, nearly a third more acres would be treated annually than under the Proposed Action, but only if the prescriptions for burning could be met. If weather or fuel conditions are such that prescribed burns or wildland fire use could not occur, the acres that would have been burned would remain untreated. Therefore, the implementation of this Alternative is most dependent on conditions outside the control of the agency. Under appropriate circumstances, more acres would be treated under this Alternative than under the Proposed Action, but circumstances -- mainly weather and drought -- play a greater role in implementation of this Alternative.

Under this Alternative, BLM would treat an average of 287,000 acres annually (Table 2.2). This alternative differs from the Proposed Action only in the proportion of acres that would be treated using prescribed fire, mechanical treatments, and chemical treatments. All other aspects of this Alternative are the same as under the Proposed Action. Under the Fire Emphasis Alternative, an average of 60 percent of acres treated annually would be prescribed burns or wildland fire use for resource benefit on grasslands and woodlands; 20 percent would be mechanical treatments on woodlands and forests; and 20 percent would be chemical treatment of shrublands (Appendix A.1). Over 20 years, approximately 5,740,000 acres would be treated.

#### Identification Of The Preferred Alternative

Based on the analysis presented in Chapter 4, staff recommends that the Multiple Treatment Alternative (Proposed Action) be the BLM's Preferred Alternative. Management has not yet reviewed the alternatives and decided upon a Preferred Alternative.

## Alternatives Considered but Eliminated from Detailed Study

As a result of internal and public scoping, four alternatives were considered but eliminated from detailed study because they did not meet the objectives of the Federal Wildland Fire Management Policy, i.e. they did not meet the plan's purpose of restoring fire as an integral part of fire-adapted ecosystems in order to meet resource management objectives or improving the protection of human life and property through the reduction of hazardous fuels. These alternatives and the reasons for not studying them in detail are summarized below.

### **Full Suppression/No Treatment Alternative**

The BLM considered the possibility of full suppression of all natural and human-caused fires, in combination with not conducting any fuels reduction treatments such as prescribed burns or mechanical thinning. Field Office and fire management personnel indicated that such a program would exacerbate the existing situation, in which the fire suppression policy of the past 100 years has led, in many areas, to high levels of hazardous fuels that may lead to catastrophic fires.

### **Prescribed Fire Alternative**

The BLM considered its ability to achieve fuels reduction solely through the use of prescribed fire on public land in New Mexico and Texas. Field Office and fire management personnel indicated that prescribed fire would pose a very real danger in some areas where vegetation is far beyond its natural fire cycle, without some form of pre-treatment. In conjunction with the amount of private property in and around these areas, this fuels accumulation creates an unacceptable risk to human life and resources.

### **Mechanical Treatment Alternative**

The BLM considered its ability to achieve fuels reduction solely through the use of mechanical treatment on public land in New Mexico and Texas. Field Office and fire management personnel indicated that maximum implementation levels of mechanical treatment alone would be unlikely to meet the BLM's goals to achieve fuels reduction and would also not restore fire's role in ecosystems.

### **Grazing Alternative**

Per public comment, the BLM considered its ability to achieve fuels reduction solely through the use of grazing on public land in New Mexico and Texas. Field Office and fire management personnel indicated that implementation of grazing as the only fuels reduction treatment would not meet the BLM's goals to achieve fuels reduction, especially in woodlands and shrublands. Grazing alone would not restore fire's role in ecosystems.